

A high-level monthly briefing on operations and activities at the Department of Energy's Idaho National Engineering and Environmental Laboratory – Home of Science and Engineering Solutions. Work at the lab supports the Department's business lines of environmental quality, energy resources, national security and science.

■ ENVIRONMENTAL QUALITY – INEEL Research Gets Headquarters Boost

The Department of Energy's Environmental Management Science Program has awarded the INEEL \$1.5 million in grant funding over the next three years for research to support the department's Environmental Management cleanup program. The grant, to fund research initiatives to develop new approaches to dealing with the disposition of high level waste and the deactivation and decontamination of facilities, is one of 45 research grants totaling \$39 million awarded to nearly two dozen universities, eight DOE laboratories, one other government and one private institution. "The projects outlined are designed to apply advanced scientific research and initiatives to make significant strides in nuclear waste cleanup efforts at various DOE sites," explained Secretary of Energy Spencer Abraham, who made the announcement of the INEEL grant while visiting the lab recently. "The success of these programs and the success of the Department's Environmental Management Science Program will be measured in actual cleanup results, and we expect these programs to deliver."

■ SCIENCE – Putting Lasers on the Lookout for Bugs

INEEL researchers have developed a highly accurate laser scanning device to detect bacteria on basalt surfaces, the prevalent rock formation under the INEEL site. Researchers can now scan bacteria on basalt – a fine-grained, complex mix of minerals – to see where the microorganisms live and then analyze what enzymes they produce. This information will give them clues about where the bacteria prefer to live and why, and insight into how they may eventually coax those microbes to break down underground pollutants.

■ ENERGY RESOURCES – INEEL Honored by State

The INEEL and Amalgamated Research of Twin Falls were singled out for recognition from the Idaho Energy Division of the Idaho Department of Water Resources this month. The state-level acknowledgment came in the form of an *Idaho Innovation in Industry* award in the agriculture/food industry category. The lab and the Magic Valley firm were cited for their development of industrial membrane filtration and fractal separations systems. Such systems could play key roles in the production of fuels from plant-based materials such as trees, straw and related agricultural products.

■ NATIONAL SECURITY – Supporting Homeland Security

INEEL technologies and technologists were in the spotlight in the nation's capitol this month. At the request of Energy Secretary Spencer Abraham, the INEEL traveled east to be part of the *Counter-terrorism Technologies to Protect America* demonstration. The Portable Isotopic Neutron Spectroscopy (PINS) System, developed by INEEL scientist Gus Caffrey, was among more than two dozen DOE-developed systems that Abraham and Director of the White House Office of Homeland Security Tom Ridge viewed. PINS is a mobile system that can be set up in the field to identify in minutes the contents of unmarked or unknown objects. In commenting on the work of the INEEL and its sister laboratories, Ridge said, "This is the kind of creative genius I can count on to bolster homeland security in the years ahead."

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